

Appln. No. 09679,363

50. The vacuum cleaner as claimed in claim 49 wher in the passage is adapted to convey all particulate matter that flows from the first cyclonic stage outlet to the second stage cyclone inlets.
51. The vacuum cleaner as claimed in claim 49 wherein the second stage cyclones at least partially surround the passage.
52. The vacuum cleaner as claimed in claim 49 wherein the passage is at least partially defined by the second stage cyclones.
53. The vacuum cleaner as claimed in claim 49 wherein the passage has a cross sectional area which is approximately the same as the cross sectional area of the first cyclonic cleaning stage outlet.
54. The vacuum cleaner as claimed in claim 49 wherein the passage is substantially free of horizontal spaces that are transverse to the direction of fluid flow through the passage.
55. The vacuum cleaner as claimed in claim 49 wherein the passage is substantially free of any dead air spaces.
56. The vacuum cleaner as claimed in claim 49 wherein the passage is substantially free of regions that are adapted to separate particulate matter from the air stream.
57. The vacuum cleaner as claimed in claim 49 wherein the passage is defined by a single conduit.
58. A vacuum cleaner comprising:
- (a) a dirty air inlet and a source of suction to draw air containing particulate matter into the dirty air inlet and produce an air stream in the vacuum cleaner;
  - (b) a first cyclonic cleaning stage comprising a cyclone having a first cyclonic cleaning stage inlet and a first cyclonic cleaning stage outlet;
  - (c) a second cyclonic cleaning stage positioned in series with the first cyclonic cleaning stage, the second cyclonic cleaning stage comprising a plurality of second stage cyclones, each of the second stage cyclones having a second stage cyclone inlet and a second stage cyclone outlet; and,
  - (d) a passage connecting the first cyclonic cleaning stage outlet in fluid flow communication with the second stage cyclone inlets, and the passage is substantially free of any dead air spaces.
59. The vacuum cleaner as claimed in claim 58 wherein the passage is adapted to convey all particulate matter that flows from the first cyclonic stage outlet to the second stage cyclon inlets.
60. The vacuum cleaner as claimed in claim 58 wherein the second stage cyclones at least partially surround the passage.

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61. The vacuum cleaner as claimed in claim 58 wherein the passage is at least partially defined by the second stage cyclones.
62. The vacuum cleaner as claimed in claim 58 wherein the passage has a cross sectional area which is approximately the same as the cross sectional area of the first cyclonic cleaning stage outlet.
63. The vacuum cleaner as claimed in claim 58 wherein the passage is substantially free of horizontal spaces that are transverse to the direction of fluid flow through the passage.
64. The vacuum cleaner as claimed in claim 58 wherein the passage is substantially free of regions that are adapted to separate particulate matter from the air stream.
65. The vacuum cleaner as claimed in claim 58 wherein the passage is defined by a single conduit.
66. A vacuum cleaner comprising:
- (a) a dirty air inlet and a source of suction to draw air containing particulate matter into the dirty air inlet and produce an air stream in the vacuum cleaner;
  - (b) a first cyclonic cleaning stage comprising a cyclone having a first cyclonic cleaning stage inlet and a first cyclonic cleaning stage outlet;
  - (c) a second cyclonic cleaning stage positioned in series with the first cyclonic cleaning stage, the second cyclonic cleaning stage comprising a plurality of second stage cyclones, each of the second stage cyclones having a second stage cyclone inlet and a second stage cyclone outlet; and,
  - (d) a conduit connecting the first cyclonic cleaning stage outlet in fluid flow communication with the second stage cyclone inlets.
67. The vacuum cleaner as claimed in claim 66 wherein the passage is adapted to convey all particulate matter that flows from the first cyclonic stage outlet to the second stage cyclone inlets.
68. The vacuum cleaner as claimed in claim 66 wherein the second stage cyclones at least partially surround the passage.
69. The vacuum cleaner as claimed in claim 66 wherein the passage is at least partially defined by the second stage cyclones.
70. The vacuum cleaner as claimed in claim 66 wherein the passage has a cross sectional area which is approximately the same as the cross sectional area of the first cyclonic cleaning stage outlet.
71. The vacuum cleaner as claimed in claim 66 wherein the passage is substantially free of horizontal spaces that are transverse to the direction of fluid flow through the passage.

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72. The vacuum cleaner as claimed in claim 66 wherein the passage is substantially free of regions that are adapted to separate particulate matter from the air stream.

73. The vacuum cleaner as claimed in claim 66 wherein the passage is substantially free of any dead air spaces.

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